

MAMMALS COLLECTED BY DR. W. L. ABBOTT IN THE KARIMATA ISLANDS, DUTCH EAST INDIES.

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The Karimata Islands lie at the northern extremity of Karimata Strait, the wide, reef-beset passage separating the west coast of Borneo from the large island of Billiton. They are about 30 miles southwest of Pulo Maya, on the Bornean coast, and twice this distance northeast of Billiton. On both sides the surrounding water reaches a depth of about 20 fathoms. Karimata, the principal island of the group, is 10 miles across from northeast to southwest, and is nearly as broad along its north coast. In its interior the surface rises to 3,500 feet, while a hill half this height occupies the southwestern region. Pulo Serutu is about a mile wide, and extends in an east and west direction about 7 miles. Though its eastern extremity is only 4 miles from the southwest point of Karimata, Serutu is separated from the larger island by a strait 22 fathoms deep. It is high, rocky, and densely forested, except in some places, where the surface is mostly bare or covered with scrub. In the interior the land reaches an elevation of 1,600 feet. In addition to these two principal islands there are half a dozen islets lying off the northwest extremity of Karimata. The group was visited by Dr. W. L. Abbott during August 16 to September 5, 1904. His collection of mammals, made exclusively on Serutu (August 16 to 19) and Karimata (August 20 to September 5), has been presented to the United States National Museum. It contains 17 species (12 from Karimata only, 3 from Serutu only, and 2 from both islands), 9 of which are new.

SYSTEMATIC LIST OF SPECIES.

Family TRAGULIDÆ.

TRAGULUS CARIMATÆ, new species.

Type.—Young adult female (skin and skull), No. 125062, United States National Museum. Collected at Telok Pai, Karimata Island, August 25, 1904, by Dr. W. L. Abbott. Original number, 3651.

Characters.—Externally like *Tragulus kanchil*. Skull slightly larger and broader than in the Sumatran animal and teeth noticeably heavier.

Color.—The color so closely resembles that of the Sumatran *Tragulus kanchil* that I can detect no constant differences between the two animals. Among the specimens of *T. carimatæ*, however, occur the individuals with the underparts most strongly suffused with buffy and with the most heavily marked nape stripe.

Skull and teeth.—The skull does not differ very noticeably from that of *Tragulus kanchil*, except that the specimens average somewhat larger and broader, as may be readily seen on comparing series. The differences in the size of the teeth of the two animals are shown in the following table:^a

Measurements of Tragulus kanchil and Tragulus carimatæ.

Name and locality.	Cat. No.	Sex.	Maxillary tooth row.	Transverse diameter of m ² .	Mandibular tooth row.
TAPANULI BAY, SUMATRA.					
			mm.	mm.	mm.
<i>Tragulus kanchil</i>	114119	Male adult.....	31.8	6.4	36.0
Do.....	114120	do.....	33.0	6.6	37.0
Do.....	114126	do.....	31.4	6.2	35.6
Do.....	114127	do.....	33.0	6.2	36.6
Do.....	114121	Female adult.....	32.0	6.0	34.6
Do.....	114122	do.....	33.4	6.0	36.2
Do.....	114123	do.....	31.0	6.0	35.0
Do.....	114124	do.....	33.8	6.2	37.4
Do.....	114125	do.....	32.0	5.8	36.0
KARIMATA ISLAND.					
<i>Tragulus carimatæ</i>	125054	Male adult.....	35.0	6.6	39.6
Do.....	125066	do.....	35.6	6.4	39.0
Do.....	125069	do.....	34.8	6.0	38.0
Do.....	125055	Female adult.....	35.0	7.0	39.0
Do.....	125056	do.....	36.8	6.8	39.4
Do.....	^a 125062	do.....	36.0	7.0	40.0
Do.....	125063	do.....	34.0	6.6	38.0
Do.....	125065	do.....	35.0	6.8	39.0

^a Type.

Measurements.—For external measurements see table. Skull of type: Greatest length, 101.6 mm. (94.6)^b; condylobasal length, 95.6 (88); basal length, 88.6 (82); palatal length, 62.6 (56.8); diastema, 11 (10.4); length of nasals, 28.4 (27.8); greatest breadth of both nasals together, 14.4 (12); zygomatic breadth, 42.4 (41.8); least interorbital breadth, 26.8 (27.6); mandible, 78 (73).

Specimens examined.—Sixteen, all from the type locality.

^aThe specimens measured are all adults, with teeth not much worn.

^bMeasurements in parentheses are those of an adult female *Tragulus kanchil* (No. 114421) from Tapanuli Bay, Sumatra.

Measurements of Tragulus carimata.

Name and locality.	Cat. No.	Sex.	Head and body.	Tail vertebrae.	Hind foot.	Hind foot without hoofs.	Weight.
KARIMATA ISLAND.			mm.	mm.	mm.	mm.	kg.
<i>Tragulus carimata</i>	125054	Male	475	75	125	111	.....
Do	125060	.....do	447	65	118	104	1.8
Do	125061	.....do	467	60	123	111	.....
Do	125066	.....do	458	70	118	108	2.0
Do	125067	.....do	464	70	122	112	2.2
Do	125068	.....do	450	70	120	108	2.0
Do	125069	.....do	450	85	122	112	2.3
Do	125055	Female	495	75	128	117	2.6
Do	125056	.....do	495	85	126	117	2.3
Do	125057	.....do	480	70	123	112	.....
Do	125058	.....do	470	65	116	108	.....
Do	125059	.....do	450	70	120	107	.....
Do	^a 125062	.....do	485	75	130	119	2.5
Do	125063	.....do	455	75	120	106	2.3
Do	125064	.....do	463	70	117	108	2.3
Do	125065	.....do	455	65	123	110	2.0

^aType.

Family SCIURIDÆ.

SCIURUS CARIMATÆ, new species.

Type.—Adult male (skin and skull) No. 125076 United States National Museum. Collected at Telok Pai, Karimata Island, August 27, 1904, by Dr. W. L. Abbott. Original number, 3662.

Characters.—A member of the *Sciurus perrostii* group resembling *Sciurus mimellus* of the Tambelan Islands, but with size not as much reduced, and with tail distinctly shortened.

Color.—Upper parts from muzzle to and including entire tail clear black. Cheeks and sides of neck a grizzled slaty gray, dark enough to throw into slight relief the whitish patch at base of whiskers and the speck on cheek. Lateral stripe buffy white, passing abruptly into light orange-buff, slightly grizzled with gray on shoulder. Dark lateral stripe black, not very well defined. Under parts, feet, inner surface of hind leg, and entire fore leg orange-rufous, fading into orange-buff on upper arm.

Skull and teeth.—The skull and teeth resemble those of *Sciurus mimellus*, but are appreciably larger. The rostral portion of the skull in particular is much broadened.

Measurements.—For external measurements see table, page 58. Skull of type: Upper length, 53 mm.; condylobasilar length, 46; basilar length, 43; palatilar length, 22; diastema, 12.2; zygomatic breadth, 32.8; interorbital constriction, 21; breadth of brain case above roots of zygomata, 22.8; mandible, 34; maxillary tooth row (alveoli), 9.8; mandibular tooth row (alveoli), 9.4.

Specimens examined.—Thirteen, all from Karimata Island.

Remarks.—This is a well characterized local species. In color it closely resembles *Sciurus bangkanus*, but in size it more nearly agrees with the geographically more distant *S. mimellus*.

SCIURUS SERUTUS, new species.

Type.—Adult male (skin and skull) No. 125025, United States National Museum. Collected on Pulo Serutu, Karimata Islands, August 17, 1904, by Dr. W. L. Abbott. Original number, 3584.

Characters.—A member of the *Sciurus vittatus* group, closely resembling the small *Sciurus aoris* in color, but size about as usual in the larger species.

Color.—The color so closely resembles that of *Sciurus aoris*^a as to require no very detailed description. The upper parts are the same coarse grizzle of black and pale buff. The under parts are, however, somewhat brighter than in the related species, deepening to orange-buff posteriorly; cheeks rather strongly suffused with buff; lateral stripes rather short and wide, the dark stripe slightly washed with color of belly.

Skull and teeth.—The skull resembles that of *Sciurus vittatus*, but is rather longer and narrower. Teeth not as large as in the Sumatran animal.

Measurements.—For external measurements see table, page 58. Skull of type: Upper length, 48.8; condylobasilar length, 42.6; basilar length, 39; palatilar length, 21; diastema, 11; zygomatic breadth, 28; inter-orbital constriction, 16.8; breadth of brain case above roots of zygomatica, 21; mandible, 31; maxillary tooth row (alveoli), 9; mandibular tooth row (alveoli), 8.

Specimens examined.—One, the type.

Measurements of Sciurus carimata and Sciurus serutus.

Name and locality.	Cat. No.	Sex.	Total length.	Head and body.	Tail vertebrae.	Hind foot.	Hind foot without claws.
KARIMATA ISLAND.			mm.	mm.	mm.	mm.	mm.
<i>Sciurus carimatae</i>	125,070	Male.....	435	225	210	52.6	49.0
Do.....	125,073	...do.....	432	220	212	52.0	48.0
Do.....	125,075	...do.....	445	240	205	55.0	50.0
Do.....	^a 125,076	...do.....	428	243	185	52.0	47.0
Do.....	125,077	...do.....	431	236	195	53.0	48.6
Do.....	125,108	...do.....	450	237	213	55.0	52.0
Do.....	125,109	...do.....	460	235	225	52.0	49.0
Do.....	125,110	...do.....	460	245	215	55.4	51.4
Do.....	125,071	Female....	440	210	200	51.0	47.0
Do.....	125,072	...do.....	435	230	205	53.0	49.0
Do.....	125,074	...do.....	425	230	195	51.0	47.0
Do.....	125,111	...do.....	467	242	225	54.0	50.0
Do.....	125,112	...do.....	435	230	205	53.0	49.0
Do.....	125,113	...do.....	418	248	170	53.4	49.4
PULO SERUTU.							
<i>Sciurus serutus</i>	^a 125,025	Male adult..	345	215	130	47.0	44.0

^a Type.

^a Miller, Smithsonian Miscell. Coll., XLV, p. 10, November 6, 1903.

Family MURIDÆ.

MUS NEGLECTUS Jentink?

Four skins from Pulo Serutu and three from Karimata represent a species closely resembling the Bornean *Mus neglectus* Jentink. Without material for direct comparison it is impossible to identify the Karimata form. For measurements, see table, page 60.

MUS SERUTUS, new species.

Type.—Adult male (skin and skull) No. 125032, United States National Museum.

Collected on Pulu Serutu, Karimata Islands, August 17, 1904, by Dr. W. L. Abbott. Original number, 3590.

Characters.—A large, dark form of the *Mus surifer* group resembling *M. lingensis*, but color darker and skull with less broadened rostrum; size greater and color not as dark as in *Mus pagensis*.

Color.—Ground color dull tawny, darkening slightly on hind legs, and fading on front legs nearly to ochraceous-buff. On back and sides this is nearly concealed by the bristles, which are dark brown at tip, ceru-drab through the greater part of their length. Nape, crown, and face tawny washed with dark brown. Cheeks ochraceous buff. Feet dull white, with no trace of the dark clouding present in *Mus pagensis*. Under parts pale cream-buff. Tail sharply bicolor, dark brown above, whitish below, and at tip.

Skull and teeth.—The skull differs from that of *Mus lingensis* in the distinctly less broadened rostrum, in this respect resembling the skull of *Mus surifer*. Otherwise neither it nor the teeth show any special peculiarities.

Measurements.—For external measurements see table, page 60. Skull of type: Upper length, 49 mm.; condylobasilar length, 41; basilar length, 38; palatilar length, 19.8; diastema, 12.6; breadth of rostrum midway between base of zygoma and tip of nasals, 7.2;^a interorbital constriction, 7.6; breadth of braincase above roots of zygomata, 18; mandible, 26.6; maxillary tooth row (alveoli), 7.6; mandibular tooth row (alveoli), 7.

Specimens examined.—Twelve, all from Pulo Serutu.

Remarks.—Although in a general way resembling the two other dark members of the group, this species is readily distinguishable from *Mus lingensis* by its slender rostrum and from *Mus pagensis* by its less darkened color and its clear white feet. In two of the skins there is a complete collar of dull ochraceous buff, and in three others there is some indication of a similar band.

MUS CARIMATÆ, new species.

Type.—Adult male (skin and skull), No. 125079, United States National Museum. Collected at Telok Pai, Karimata Island, August 20, 1904, by Dr. W. L. Abbott. Original number, 3612.

^aIn two skulls of *Mus lingensis*, female, No. 113040, with basilar length 37 mm., and male, No. 113048, with basilar length 38 mm., their breadth is 8 mm. and 8.4 mm., respectively.

Characters.—A small bright-colored member of the *Mus surifer* group, readily distinguishable from *Mus seratus*, but somewhat closely resembling *Mus surifer* of the Malay Peninsula. From this it differs in smaller size, relatively larger teeth, and shorter, wider incisive foramina.

Color.—Ground color, between ochraceous and ochraceous-buff, becoming somewhat lighter on cheeks and front legs, slightly darker on hind legs. Back somewhat clouded by the blackish tips of the bristles, but sides almost clear. Under parts and feet buffy white. An ochraceous buff collar in the type, and two other skins.

Skull and teeth.—The skull and teeth resemble those of *Mus surifer*, but the average size of the skull is less and that of the teeth greater.

Measurements.—For external measurements see table, page 60. Skull of type: Upper length, 43.6 mm.; condylobasilar length, 37; basilar length, 34; palatilar length, 17.8; diastema, 12; breadth of rostrum midway between zygoma and tip of nasals, 7; interorbital constriction, 7; breadth of braincase above roots of zygomata, 16; mandible, 24.4; maxillary tooth row (alveoli), 6.8; mandibular tooth row (alveoli), 6.2.

Specimens examined.—Eleven, all from Karimata Island.

Remarks.—Though strikingly different from its geographically nearest ally, *Mus seratus*, this species rather closely resembles the mainland member of the group.

Measurements of Mus from the Karimata Islands.

Name and locality.	Cat. No.	Sex.	Total length.	Head and body.	Tail vertebrae.	Hind foot.	Hind foot without claws.
KARIMATA ISLAND.			mm.	mm.	mm.	mm.	mm.
<i>Mus neglectus?</i>	125114	Male	367	186	181	38	36.0
Do	125115	Female	379	184	195	37	35.0
PULO SERUTU.							
<i>Mus sp.</i> near <i>rattus</i>	125026	Female	384	198	186	39	36.8
Do	125027	Male	398	198	200	40	37.8
Do	125028	Female	391	190	201	38	35.8
Do	125029	do	395	190	205	38	35.1
<i>Mus seratus</i>	125030	Male	432	231	201	46	43.6
Do	a 125032	do	404	217	187	46	43.4
Do	125039	do	377	198	179	45	42.4
Do	125042	do	420	225	195	47	39.0
Do	125043	do	395	211	184	44	40.0
Do	125033	Female	419	222	197	45	42.4
Do	125034	do	388	209	179	43	40.0
Do	125035	do	403	217	186	45	42.4
Do	125040	do	394	213	181	43	40.4
KARIMATA ISLAND.							
<i>Mus carimatae</i>	a 125079	Male	382	201	181	41	39.0
Do	125083	do	380	197	183	43	40.2
Do	125086	do	385	201	184	43	40.0
Do	125116	do	382	211	171	43	40.1
Do	125117	do	391	202	189	44	41.6
Do	125078	Female	418	227	191	41	38.6
Do	125080	Female, young	358	191	167	.....	.....
Do	125084	Female	370	196	174	.....	.....
Do	125085	do	b 302	198	b 104	40	37.6

a Type.

b Tail imperfect.

Family VIVERRIDÆ.

VIVERRA TANGALUNGA Gray.

Three specimens from Karimata Island. They are not as dark as usual. The two adults measure as follows: Adult female, No. 125095, total length 935 mm.; head and body 610; tail 325; hind foot 108; weight 3.17 kg. Adult female, No. 125118, tail 350 mm.; hind foot 105; weight 3.63 kg. The second specimen has two well-developed mammae, both ventral.

Family TUPAIIDÆ.

TUPAIA CARIMATÆ, new species

Type.—Adult male (skin and skull), No. 125123, United States National Museum. Collected on Karimata Island, September 2, 1904, by Dr. W. L. Abbott. Original number, 3716.

Characters.—Like *Tupaia chrysomalla* of the Anambas Islands, but general size less, skull shorter and relatively broader, and teeth much smaller.

Color.—The color throughout agrees with that of *Tupaia chrysomalla*,^a though the back averages slightly darker and the ferruginous is perhaps faintly less bright.

Skull and teeth.—The skull is noticeably smaller than in *Tupaia chrysomalla*, that of full-grown males being exceeded by that of females of the related species. The rostrum is considerably shortened, giving an outline much like that in *Tupaia malaccana*. Teeth like those of *Tupaia chrysomalla*, except that they are smaller throughout, a difference particularly noticeable in the first and second upper molars.

Measurements.—Skull of type: Greatest length, 46 mm. (51)^b, condylobasal length, 42.2 (47.2); basal length, 39 (44.6); palatal length, 23.4 (27.2); least distance from orbit to tip of premaxillary, 18.8 (23); least distance from orbit to posterior point of occiput, 21 (24); diastema, 3.4 (4.4); width of rostrum at middle of diastema, 6.8 (6.4); width of palate including m², 15 (15.8); zygomatic breadth, 24.6 (24.8); interorbital constriction, 13.2 (13.8); breadth of braincase, 18.8 (18.4); mandible, 31 (34.4); maxillary toothrow, exclusive of incisors, 20.2 (24); mandibular toothrow, exclusive of incisors, 16.8 (19.6).

^a Miller, Proc. Washington Acad. Sci., II, pp. 232-233, August 20, 1900.

^b Measurements in parenthesis are those of an adult male *Tupaia chrysomalla* from Pulo Jimaja, Anambas Islands (No. 101,743).

External measurements of Tupaia carinata.

Locality.	Cat. No.	Sex.	Total length.	Head and body.	Tail vertebrae.	Hind foot.	Hind foot without claws.
			mm.	mm.	mm.	mm.	mm.
Karimata Island: Telok Edar.	125120	Female adult..	320	175	145	40	37.0
Do.....	125121	.....do.....	320	175	145	43	40.0
Do.....	125122	.....do.....	320	175	145	40	37.0
Do.....	^a 125123	Male adult....	323	176	147	40	37.0
Karimata Island: Telok Pal.	125096	.....do.....	320	170	150	42	39.4
Do.....	125097	Female adult..	305	165	140	40	37.4

^a Type.Family COLUGIDÆ.^aCYNOCEPHALUS,^a species.

A young female flying lemur was taken at Telok Edar, Karimata Island, September 3, 1904. While it evidently represents a small form it is too immature to be positively identified.

Family VESPERTILIONIDÆ.

PIPISTRELLUS, species.

A single damaged immature specimen (female, No. 125156, U.S.N.M.) taken at Telok Edar, Karimata Island, September 2, 1904, I am unable to determine satisfactorily. Its measurements are: Total length, 77 mm.; tail, 33; tibia, 12; foot, 66; forearm, 30.8; thumb, 5.4; second finger, 26; third finger, 57; fourth finger, 47; fifth finger, 42; ear from meatus, 12.4; ear from crown, 9; width of ear, 7.4.

MYOTIS CARIMATÆ, new species.

Type.—Adult female (in alcohol), No. 125154, United States National Museum. Collected at Telok Edar, Karimata Island, August 28, 1904, by Dr. W. L. Abbott. Original number, 3673.

Characters.—Like *Myotis megalopus* (Dobson), but larger and with heavier teeth.

Ears, membranes, etc.—The general external characters of the species appear to agree exactly with those of *Myotis megalopus* as described by Dobson and Blanford. They are also in all respects as in a specimen (adult male, No. 112606) collected by Doctor Abbott on the Sembrong River, Johore, July 4, 1901.

Color.—After sixteen months immersion in alcohol the fur of the back is a light broccoli-brown with faint grayish reflections, the hairs almost slate black through a little more than basal half. Underparts grayish white tinged with cream-buff on throat, thighs, and base of tail. Chin, blackish. Membranes and ears uniform dark brown.

^a See Miller, Proc. Biol. Soc. Washington, XIX, p. 41, Feb. 26, 1906.

Skull and teeth.—The skull and teeth agree with those of the specimen of *Myotis megalopus* from Johore except for the slightly greater size of the former and the distinctly increased robustness of the latter. Anterior and posterior premolars practically in contact, the second crowded inward from the toothrow and quite invisible from outer side. Third upper molar with well-developed metacone and third commissure. Middle lower premolar with area of cross section only about one-third that of first or third.

Measurements.—For external measurements see table, page 64. Skull of type: Greatest length, 15.8 mm.; upper length, 13.6; condylo-basilar length, 14; basal length, 11; palatal length, 6; zygomatic breadth, 10; interorbital constriction, 4; breadth of braincase, 7.8; mandible, 11.4; maxillary toothrow, exclusive of incisors, 5.8; mandibular toothrow, exclusive of incisors, 6.2.

Specimens examined.—Two, both from the type locality.

Family EMBALLONURIDÆ.

EMBALLONURA ANAMBENSIS Miller.

1900. *Emballonura anambensis* MILLER, Proc. Washington Acad. Sci., II, p. 236. August 20, 1900 (Anambas Islands).

Twenty-six specimens (one skin) were taken at Telok Edar, Karimata Island, August 27 to September 4, 1904. They are readily distinguishable from *Emballonura peninsularis* by the more slender form of the braincase, and from *E. monticola* by their larger size, but I am unable to find any tangible character to separate them from the species occurring in the Anambas and Natunas. For measurements see table, page 64.

Family MEGADERMIDÆ.

MEGADERMA CARIMATÆ, new species.

Type.—Adult female (in alcohol), No. 125185, United States National Museum. Collected at Tanjong Karimata Tua, Karimata Island, August 31, 1904, by Dr. W. L. Abbott. Original number, 3709.

Characters.—Not as large as *Megaderma spasma* from the Malay Peninsula, but ear distinctly longer, so that its height above crown is noticeably more than half length of forearm.

Ears, membranes, etc.—As in *Megaderma spasma*.

Color.—The color does not differ appreciably from that of *Megaderma spasma*. In two skins (male, No. 125126, and female, No. 125127) it is a uniform gray throughout, about the gray No. 6 of Ridgway on upper parts, slightly less dark below, the hairs everywhere inconspicuously tipped with eeu-drab.

Skull and teeth.—The skull and teeth show no peculiarities except that they are perceptibly smaller than in the related species.

Measurements.—For measurement see table, page 64.

Specimens examined.—Thirty-one (two skins), all from the type locality.

Remarks.—This is a well marked local form, easily recognizable by its reduced general size and lengthened ears. This is best illustrated by the ratio of height of ear above crown to forearm; 47+ in 7 mainland specimens of *Megaderma spasma*, 58+ in 10 of *M. carimatae*.

Family RHINOLOPHIDÆ.

RHINOLOPHUS BORNEENSIS SPADIX (Miller).

1901. *Rhinolophus spadix* MILLER, Proc. Washington Acad. Sci., III, p. 136. March 26, 1901 (South Natunas).

1905. *Rhinolophus borneensis spadix* ANDERSEN, Proc. Zool. Soc., London, 1905, II, p. 87. October 17, 1905 (Karimata and Pulo Serutu).

Three specimens from Pulo Serutu and two from Karimata Island have been identified as above by Mr. Knud Andersen.

HIPPOSIDEROS LARVATUS (Horsfield).

Six specimens of a bat provisionally identified as *Hipposideros larvatus* by Mr. Knud Andersen^a were taken on Pulo Serutu. An adult male (No. 125049) measures, total length, 99 mm.; head and body, 68; tail, 31; tibia, 21; foot, 9; forearm, 54.8; thumb, 9.2; second finger, 44; third finger, 80; fourth finger, 62; ear from meatus, 23.4; ear from crown, 18; width of ear, 19.2.

Measurements of bats from the Karimata Islands and Malay Peninsula.

Name and locality.	Cat. No.	Sex.	Head and body.		Tail.	Tibia.	Foot.	Forearm.	Thumb.	Second finger.	Third finger.	Fourth finger.	Fifth finger.	Ear from meatus.	Ear from crown.	Width of ear.	Spread of ears.
KARIMATA ISLAND.			mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
<i>Myotis carimatae</i>	125153	Female.	44.0	38.4	16.0	10.0	37.2	8.8	38.0	69	59	53.0	15.0	12.0	10.0	....	....
Do.....	125154a	do....	48.0	40.0	16.8	10.4	38.6	9.0	41.0	73	60	55.0	16.0	12.4	10.4	....	....
<i>Emballonura anambensis</i>	125140	Male....	44.4	14.0	17.0	8.0	45.4	7.6	36.6	75	50	43.0	13.0	11.0	9.2	....	....
Do.....	125142	do....	43.6	13.4	16.4	6.6	45.0	8.0	37.0	71	51	47.0	13.4	11.4	10.2	....	....
Do.....	125144	do....	47.0	10.6	15.4	6.6	41.8	7.4	37.0	73	47	43.0	13.8	10.6	10.6	....	....
Do.....	125148	do....	45.0	13.0	17.0	7.4	46.0	8.0	36.4	72	50	47.0	14.2	12.0	10.0	....	....
Do.....	125149	do....	44.0	14.0	16.4	7.6	44.8	8.0	35.0	69	51	47.0	13.4	11.0	10.4	....	....
Do.....	125128	Female.	46.0	13.8	17.0	7.2	44.4	7.6	36.0	72	49	46.0	12.8	11.4	10.0	....	....
Do.....	125130	do....	44.0	13.0	16.4	7.6	45.0	7.4	36.0	72	49	46.0	14.0	11.4	10.0	....	....
Do.....	125131	do....	45.0	15.0	17.2	7.0	45.0	7.4	36.0	74	52	48.4	14.6	12.8	10.4	....	....
Do.....	125132	do....	46.0	13.4	18.0	7.0	46.4	7.0	39.0	76	53	50.0	14.0	12.0	9.6	....	....
Do.....	125137	do....	44.4	15.0	16.0	7.0	45.4	8.0	37.0	73	52	48.0	15.8	12.8	11.0	....	....
<i>Megaderma carimatae</i>	125165	Male....	69.0	2.0	32.0	16.8	56.8	17.0	50.0	100	78	83.0	39.0	33.4	27.0	63.0	....
Do.....	125167	do....	65.0	....	31.4	15.0	55.4	18.0	52.0	103	81	83.0	40.0	33.0	27.0	62.0	....
Do.....	125169	do....	66.0	....	31.0	15.6	56.0	17.0	48.0	105	79	81.0	40.0	32.4	26.0	62.4	....
Do.....	125170	do....	61.0	....	3.6	28.8	11.4	53.6	16.8	44.0	98	72	75.0	11.0	34.0	26.0	61.0
Do.....	125171	do....	65.0	....	2.4	31.0	14.0	56.0	14.8	51.0	102	77	80.0	40.0	31.6	26.0	61.0
Do.....	125177	Female.	63.0	....	31.8	13.8	58.8	16.2	49.0	106	80	81.0	39.8	33.1	26.6	62.4	....
Do.....	125179	do....	67.0	....	31.0	14.6	51.4	15.2	48.0	104	78	83.0	39.0	33.1	26.6	62.0	....
Do.....	125183	do....	72.6	....	32.0	16.0	56.0	17.0	48.0	103	79	85.0	39.4	33.6	27.0	64.0	....
Do.....	125185a	do....	63.0	....	32.0	17.0	55.0	17.4	51.0	108	81	84.0	42.4	35.0	27.0	65.0	....
Do.....	125187	do....	67.0	....	4.0	33.4	16.4	58.6	18.0	51.0	111	81	83.0	42.4	35.0	27.0	66.0

^a Type.

^a Under date of January 17, 1906, Mr. Andersen writes: "I do not think I shall have to separate these from *Hipposideros larratus*."

Measurements of bats from the Karimata Islands and Malay Peninsula—Continued.

Name and locality.	Cat. No.	Sex.	Head and body.	Tail.	Tibia.	Foot.	Forearm.	Thumb.	Second finger.	Third finger.	Fourth finger.	Fifth finger.	Ear from meatus.	Ear from crown.	Width of ear.	Spread of ears.
JOHORE: TANJONG SIKAKAP.			mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
<i>Megaderma spasma</i>	112737	Female.	61.0	.....	.....	16.0	59.0	17.0	53.0	114	81	85.0	32.0	29.0	24.0	55.0
Do	112738	.....do.....	64.0	.....	35.0	17.6	61.0	18.8	56.0	116	84	88.0	37.0	29.0	24.0	58.0
Do	112739	.....do.....	66.0	1.4	35.0	15.0	60.0	17.4	53.0	112	84	87.0	36.0	27.0	24.0	56.0
Do	112740	.....do.....	66.6	.....	32.0	15.0	57.0	18.6	53.0	109	85	89.0	36.0	27.4	24.0	57.0
Do	112741	.....do.....	66.0	.....	35.0	16.0	59.0	16.4	52.0	114	83	86.0	35.0	28.0	26.0	57.0
Do	112742	.....do.....	61.4	.....	32.0	15.4	59.0	16.4	55.0	112	82	89.0	35.4	28.0	25.0	56.4
Do	112743	.....do.....	72.0	.....	34.0	16.0	57.0	18.0	55.0	113	83	87.0	37.0	29.0	25.0	58.0

MACACA FASCICULARIS (Raffles).

Two specimens (male, No. 125101, and male, No. 125102) were taken at Telok Pai, Karimata Island. They appear to represent a small form with color not as bright as in the Sumatran animal, but the material is not sufficient to show their status satisfactorily.

PRESBYTIS CARIMATÆ, new species.

Type.—Adult female (skin and skull), No. 125158, United States National Museum. Collected at Telok Edar, Karimata Island, August 21, 1904, by Dr. W. L. Abbott. Original number, 3627.

Characters.—Similar to *Presbytis rubicundus*, but color lighter and brighter. Skull and teeth like those of the Bornean species, except that the pterygoid fossa is not as deep and the mandible is more robust.

Color.—Type: General color throughout a red, intermediate between the hazel and rufous of Ridgway (though somewhat nearer the former), fading almost to tawny on crown and on inner surface of legs, darkening slightly on outer surface of legs, and becoming nearly chestnut on hands and feet. Tail concolor with back. Under parts faintly lighter. Some of the other skins are not as bright, but none closely approaches the dull hazel of *Presbytis rubicunda*.

Skull and teeth.—In general the skull and teeth are as in the Bornean species, but the mandible is more heavily built, particularly behind the toothrows, its articular condyle is broader and more squarish in outline, and the pterygoid fossæ are broader and not as deep. In *Presbytis rubicunda* these cavities extend noticeably below level of basisphenoid (skull held upside down), while in the Karimatan animal they terminate more nearly opposite its surface.

Measurements.—For external measurements see table. Skull of type: Greatest length, 95 mm.; condylobasilar length, 69; basilar length, 62.4; palatilar length, 25; zygomatic breadth, 72; constriction behind orbits, 43.6; interorbital breadth, 8; breadth of braincase, 56;

mandible, 68; maxillary tooththrow, exclusive of incisors, 30.4; mandibular tooththrow, exclusive of incisors, 34.4

Specimens examined.—Seven, all from Karimata Island.

Measurements Presbytis carinata and Macaca fascicularis.

Name and locality.	Cat. No.	Sex.	Head and body.	Tail vertebrae.	Hind foot.	Weight.
KARIMATA ISLAND.						
<i>Presbytis carinata</i>	125103	Male	mm. 520	mm. 670	mm. 175	kg. 7.0
Do	125104	Female	525	b 590	170	6.6
Do	125105	.....do	460	700	-----	6.6
Do	125106	.....do	535	715	168	7.2
Do	125157	.....do	530	710	169	7.5
Do	a 125158	.....do	505	730	174	6.5
Do	125159	.....do	528	745	171	7.2
<i>Macaca fascicularis</i>	125101	Male	460	655	144	5.4
Do	125102	.....do	460	630	145	5.3

^a Type.

^b Tail imperfect.